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ABSTRACT

The report, second in a series of five on mainstreamed handicapped students in vocational education, synthesizes findings from a literature review and an organizational capacity study of the Portland, Oregon, school district. Considered are such topics as the status of the art, organizational issues (including inservice programs and planned work experience), issues related to teacher attitudes, instructional equipment, and structural barriers. The prognosis for implementing P.L. 94-142, the Education for All Handicapped Children Act, is considered in terms of facilitating factors (such as the existence of good support systems and agreement on the importance of preparation for work) and inhibiting factors (such as funding restrictions). (CL)

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A Synthesis of Information Obtained from a Literature Review and Field Research Activities Regarding the Mainstreaming of Handicapped Learners in Vocational Education

by

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Introduction

In August, 1977, the Portland Public School District was awarded a grant to design, develop, and test the necessary strategies for substantially increasing the number of handicapped youth enrolled in vocational education programs. The central purpose of the project is to improve the capacity of the Portland School District to fully implement individualized vocational education instruction, as required by Public Law 94-142, in a maximum number of classroom and field-based vocational programs.

The project was divided into five phases. The purpose of this report is to synthesize the findings from the literature review, Phase I, and the organizational capacity study, Phase II. This report incorporates information from the following documents:

Mainstreaming the Handicapped in Vocational Education (A Research Project in Vocational Education in the Portland Public Schools), January, 1978.

A Survey of the Attitudes of Secondary Teachers Toward the Mainstreaming of Handicapped Learners, (A Research Project in Vocational Education in the Portland Public Schools), Spring 1978.

Attitudes of Portland Public School Vocational Cluster Teachers Toward Teaching Handicapped Learners, Spring, 1978.

Handicapped Learner Participation in Vocational Education: A Report of Student, Parent and Teacher Interviews, Summer, 1978.

The "Education for All Handicapped Act", P.L. 94-142, will have profound effects on the vocational education of students with special needs, and will substantially influence ways in which public schools deliver special education services. To fully implement P.L. 94-142, changes will be necessary in teacher pre-service and inservice training, the attitudes of teachers toward the handicapped, instructional philosophies and methods, procedures for diagnosing and prescribing for learning needs, and the cooperative, supportive atmosphere in which educators must work together. No less demanding will be the removal of physical barriers in school buildings.

Current estimates suggest that perhaps half of the handicapped student population may not be receiving needed special services. Those handicapped students who are receiving vocational instruction do so in four basic program models: regular placement with support; regular placement with no special support; vocational instruction in special education classes; or in a situation where the curriculum and grading are modified to meet individual student needs.

There are several characteristics of successful programs for vocational education of the handicapped. Noteworthy programs are generally characterized by greater teacher cooperation, progressive inservice programs, effective use of instructional aides and tutoring, individualized instruction and modified curriculum, flexible and competency based grading, planned work experience, careful coordination of special needs students, coordination of educational leadership,

and modification of equipment and facilities, when it is necessary.

Status of the Art

The degree to which a school district will be successful in implementing P.L. 94-142 will be directly related to leadership, organizational structure and the ability of personnel to make adjustments. School leaders must have a clear understanding of the law, and through their direction and encouragement, the spirit and letter of the law must be reflected in district, school, and program philosophies, specific goals, and a plan of action for goal attainment. Specific responsibilities must be assigned at appropriate organizational levels, and whenever possible, collaboration and cooperation should be encouraged.

Recent history has shown that Portland school personnel can change. Career education, multi-cultural education, and the management by objectives emphasis are all examples of how educators have recently had to adjust their teaching behavior and do things differently. A more recent and relevant example might be the individual educational plan (IEP) required for all special needs youngsters. With proper leadership, adequate information and support services, Portland School District IJ will continue to adjust favorably to the requirements of P.L. 94-142.

A number of characteristics of successful vocational education programs for the handicapped are discussed in the literature. The attitude survey and the interviews with handicapped learners, their parents, and their teachers also identified directions that might be taken in order to successfully involve handicapped learners in vocational

programs. For purposes of discussion, the items for possible attention are divided into three categories: (1) matters of an organizational nature; (2) issues that are related to teacher attitudes; and (3) possible action items that deal with equipment, instructional materials, and financial support.

Items of an Organizational Nature

Inservice programs: In order to complement and reinforce the teaching of handicapped students, the teachers of differing disciplines must learn from each other. The vocational teacher must learn about the learning and other behavioral problems of handicapped youth, and the special needs teacher must learn more about the general and specific aspects of vocational education. Safety procedures for the proper use of equipment must be clearly understood and practiced. Such experiences can be facilitated through a number of inservice models.

Inservice programs provide an opportunity for teacher training institutions to work cooperatively with public school educators. Colleges and universities are faced with the same problem in that they must begin to prepare educators who are knowledgeable and able to work cooperatively and effectively in both areas. A cooperative venture into preservice and inservice instruction is necessary if vocational education is to be made available to handicapped learners.

Teachers who were part of the attitude survey sample stated that staff development activities would be necessary in order for them to gain self-assurance, teaching competencies, and other skills

necessary for them to teach handicapped learners. Vocational teachers further stated that curriculum development, training in instructional methods, and help in obtaining instructional materials were all needed. These concerns are among others that might be addressed in inservice classes.

Since the interviews with handicapped learners, their parents, and teachers showed that very few of the youngsters in the sample had participated in a vocational cluster, and that teachers and parents felt they had very little understanding of vocational cluster programs, it would seem that methods for better student and public information might be developed through a variety of inservice activities.

Instructional aides/tutoring: The attitude survey identified "too many students" as a major obstacle in mainstreaming handicapped learners. Teachers who were interviewed also stated that one-to-one tutoring assistance may often be needed to assist learners. One way to reduce the student/teacher ratio and to provide needed in-class support is to employ instructional aides and to use tutors. In some cases, it may be necessary to assign an aide, often a certified instructor, to a student on a one-to-one basis. The need for common training and cooperative instruction is apparent. For any support person to work effectively, he must have an understanding of the course content, and the student's learning needs. Student aides and community volunteers have also been used effectively in a variety of settings.

Although there are some affective dimensions to involving aides in

instruction, it is seen by the writer as being primarily an organizational concern. Where a need for an instructional aide or tutor is identified, it becomes an administrative and budgetory matter to accomplish that end. Training and supervision of such a person should be the responsibility of multiple organizational levels.

Planned work experience: Work experience can positively affect all students. It provides a chance for the student to test what he has learned, practice skills, and begin to learn the demands of employment. It is a bridge between the academic world and the world of work.

The handicapped may have a unique need for work experience that is not apparent in the total population. Most handicapped youth have not had the breadth of developmental experiences as have their normal contemporaries. Often their world has been restricted and their experiences have been quite limited. Work experience provides another meaningful way they can learn and adjust to the new social situations that are typical of those they will face throughout life. The student interviews showed that the mildly retarded and deaf have had considerable work experience, but the types of experiences varied considerably. Approximately half of the orthopedically handicapped (OH) and half of the emotionally handicapped (EH) have had work experience of one kind or another. A very high percentage of placement and supervision is by the special work experience coordinators.

The teacher attitude survey clearly showed that teachers feel handi-

capped learners should aspire to employment or further education after graduation. The literature states handicapped people tend to be substantially underemployed, and too often they are unemployed.

Continued and expanded, planned, and well supervised work experience programs will be necessary if the handicapped are to achieve their employment goals. Since each school currently has systems for cooperative and vocational work experience, it seems that the transition to providing work experience for the handicapped should be minimal. More specialists will be needed; perhaps current work experience coordinators will be able to develop job sites and supervise the students with cooperation from special educators. Models for work experience programs for the handicapped exist now. They must be modified to meet the unique situations found in individual schools.

Coordination of leadership: In order to accomplish the work experience goal and others, cooperation and communication among all phases of educational leadership will be necessary. The literature clearly points out that high levels of cooperation are characteristic of successful programs. The vocational cluster teacher attitude survey results show teachers feel a need for more administrative direction (information regarding P.L. 94-142).

The handicapped student interviews show that few handicapped youth report having received assistance from school counselors in selecting classes. Exceptions are the physically handicapped and the deaf, who have special teachers who have been assigned the role of counselor by students. Both handicapped students and their parents were

very unfamiliar with vocational clusters. Both handicapped students and their parents expressed a very high interest in choosing a vocational education cluster if the option were available. Effective administrative leadership will be required to meet these needs. Central administration, area administration, and building level administration must clarify their roles, coordinate their policies, and accept responsibility at appropriate levels for planning, implementing and evaluating procedures for increasing the successful participation of handicapped learners in vocational education. Again, maximum cooperation and coodination of leadership will encourage the process.

Issues Related to Teacher Attitudes

Greater teacher cooperation: The mainstreaming of special needs youth in vocational programs requires that teachers in both fields complement one another in their work with students. [redacted] strengths that, when shared in a spirit of cooperat[redacted] much greater student achievement. Attention must be g[redacted]e assignment and scheduling of staff in order to provide common meeting, planning, and instructional time for teachers. With appropriate administrative leadership, and an adequate understanding of the requirements of P.L. 94-142, the cooperation between vocational educators should be facilitated.

Voids in student awareness of vocational cluster programs, educational and vocational guidance, and cooperative work experience will necessitate greater teamwork, if the deficiencies are to be reduced.

The attitude survey showed that teachers within the sample very strongly feel that cooperative teaching and planning with special education teachers will improve handicapped learner performance. Also, since three of the most often stated needs of general and vocational educators are the need for extra support personnel, training in instructional methods, and obtaining instructional materials, it would seem that a felt need for interdisciplinary cooperation now exists in Portland.

Flexible grading: Flexible grading and the individualization of learning objectives will require flexible behavior on the part of the teacher. Since most vocational clusters have individualized learning curriculum available, and in many cases the instructors apply individualized competency-based methods in their teaching, it is a logical extension of the practice to individualize instruction, based on needs stemming from a handicapping condition. Since the individualized educational program (IEP) process requires, among other things, specific learning goals and a statement of specific educational services, any vocational educator who has instructional responsibilities for a handicapped student will naturally be assimilated into the building IEP process. Flexibility in grading is a logical extension of a plan for an individualized education.

Instructional Equipment, Structural Barriers, etc.

The teacher attitude survey indicates that there is a considerable teacher awareness of the need for providing special equipment and modifying some existing facilities for the handicapped. Successful

programs, primarily those serving physically or orthopedically handicapped, have to provide adequate equipment, facilities, and access to both. Ramps, hand bars, and sufficiently wide doors may be needed. Sometimes equipment may need to be modified in order to accommodate persons who must operate it from a sitting position. A variety of special tools and measuring devices may be needed by visually impaired students. It must be remembered that access to and from the school building and all sections of the building facilities must be available to handicapped learners.

Handicapped youth in the interview population listed a number of areas in which they feel a need for assistance. Perhaps because of very limited experience in vocational education, none of the concerns dealt with barriers or equipment, however. The handicapped population in general, expressed a need for support persons, such as counselors, tutors, or similar persons who can provide a myriad of support services. Help with reading, mobility, and just the presence of a supportive person are examples of needs that were expressed by the handicapped.

Multiple Categories

Coordination of special needs students: The scheduling of classes, support services, and the coordination of student movement within and outside the school requires special attention. It is a matter affected by organizational matters and affective concerns of teachers. The student interviews indicated that with the exception of the OH population, over 90 percent of handicapped learners are

mainstreamed to some degree in the Portland Public Schools. As most schools have integrated the handicapped into regualr programs, they have assigned coordination responsibilities to a staff person, often a special education teacher whose students have been mainstreamed. The person may work closely with a counselor, and often schedules the students, arranges for needed support services, such as tutoring, and coordinates student movement within the building.

Effective coordination will be enhanced by clear, decisive administrative leadership, an open information system, and teacher input regarding objectives for the handicapped into school and program goals. Teachers must re-evaluate their attitudes about working with the handicapped, and in most cases, a higher acceptance level will have to be reached if mainstreaming is to be successful. Here, it should be noted that only 14 percent of vocational cluster teachers felt that changing their attitudes would be necessary for them to be effective with handicapped students.

Since acceptance of the handicapped seems to be related to the amount of contact teachers have had with the handicapped, greater teacher competency and a clearer understanding of organizational goals regarding the handicapped should positively affect teacher acceptance of and willingness to work with the handicapped.

Individualized instruction/modified curriculum: Perhaps the supreme test of a school's ability to mainstream handicapped learners into vocational education programs will be the relative ease in which teachers will be able to individualize instruction. Modifying the curriculum and individualizing instruction are matters that affect

and are affected by organizational structure, teacher attitudes, and structural equipment restrictions within school buildings.

Vocational cluster curriculum is very prescriptive in terms of instructional objectives and competency goal attainment are concerned. Both reflect the needs of business and industry, and are the result of considerable state level research and planning. Any attempt to significantly alter acceptable levels of competency attainment for large groups of students could affect the "approved" status of the vocational course. Yet a failure to consider learning levels of students will result in unsuccessful student performance.

Vocational teachers strongly stated that their inability to individualize instruction, and to a lesser extent, the difficulty of individualizing the curriculum were matters that would make mainstreaming the handicapped difficult. To some extent these attitudes have a basis in fact; that is, teachers may lack many of the skills to individualize curriculum and instruction. To a greater extent, the concern might represent fear of the unknown, lack of confidence, or the knowledge that extra time and energy will be necessary to individualize instruction.

Special education teachers stated that handicapped students in general would have trouble meeting expected competencies of vocational cluster programs because of reading and mathematics skill levels and other learning deficiencies.

Individualizing instruction will necessitate eliminating some

architectural barriers and modifying some equipment. All staff must help to identify areas where modifications will be needed, and appropriate administrators must assume leadership responsibilities for assuring needed changes. In some cases, particularly in working with the orthopedically handicapped and blind/visually impaired, instructors must familiarize themselves with new equipment. There is also great need for teacher innovation in the area of equipment adaptation.

Conclusions

The prognosis for implementing P.L. 94-142 in vocational cluster programs may be viewed with varying degrees of optimism. Factors that will influence the smoothness of mainstreaming the handicapped are discussed in terms of those that are likely to facilitate the process and those that are inhibiting in nature.

Facilitating Factors

1. The attitude surveys of vocational cluster teachers, non-vocational educators, and administrators have provided substantial amounts of information regarding teacher affective concerns. We have a clearer idea about what teachers prefer, need, and are willing to do regarding their work with the handicapped.

2. Good support systems exist for the handicapped. Blind/visually impaired, deaf/hearing impaired, and teachers of the mentally retarded provide thorough support and monitoring of student progress in classroom and off campus activities. Existing models for support might be reviewed and expanded or modified in order to meet student support needs resulting from increased enrollment of the handicapped in vocational clusters.

3. Most handicapped students are experiencing some kind of mainstreaming. Mainstreaming in vocational education is an extension of the current situation.

4. Both non-vocational educators, vocational cluster teachers and handicapped students and their parents agree that preparation for work is a priority. Students expressed strong interest in taking courses that would prepare them for employment, and vocational teachers feel further education or employment should be ligitimate aspirations of the handicapped.

5. The Vocational Assessment Center* is able to provide assessment information to cluster teachers regarding the performance potential of many handicapped youth. As the capabilities of the Center are expanded, and as vocational teachers become aware of its services, its potential for providing screening and diagnostic services will be enhanced.

6. The human resources of the Portland School District have the professional competence to appropriately plan and implement strategies for increasing numbers of handicapped learners in vocational cluster programs. (See Appendix A)

Inhibiting Factors

1. There seems to be no clear agreement on what kind of vocational preparation handicapped youth should get. Often their capabilities do not allow them to master all occupational competencies required by vocational cluster curriculum. Most are able to perform some occupational

* The Vocational Assessment Center of the Portland Public Schools is located at 220 N.E. Beech Street, Portland, Oregon 97212.

competencies, however, they are more sophisticated than those taught in special education classes. Attention needs to be given to developing cooperative work experience sites and providing post-school work placement.

2. There is no agreement on who should have the prime responsibility for providing vocational education for the handicapped. Traditionally, vocational preparation has been provided by special educators and has been directed at such levels as habits, attitudes, and general coping skills. If handicapped learners are to receive true vocational preparation, greater cooperation and delineation of responsibilities of vocational and special educators will have to be accomplished. We have become highly specialized; we now need to learn to cross disciplinary lines and make all education special.

3. Neither the administrative leadership of special education or vocational education have strongly addressed the problem of providing vocational education for the handicapped.

4. Methods to change teacher attitudes and build teacher competencies in unfamiliar areas must be identified. Special educators must become more familiar with vocational education, and vocational educators must learn more about special education. The District's inservice model may not be able to support all the staff development activities that are necessary. Teachers must be polled for us to learn what are the most acceptable models for staff development.

5. Money will be a problem. Funds for staff development, equipment, teaching materials, support staff, and other extra-cost items will be needed. Local resources appear to be diminishing; federal resources are minimal and often have accompanying restrictions. Costs of identifying the handicapped and prescribing individualized education for learners will be expensive.

6. Funding restrictions often prevent or inhibit cooperative projects. Special education funds and vocational education funds must each be spent very restrictively; opportunities to fund cooperative ventures are remote.

7. Class sizes may have to be reduced to compensate teachers for enrolling handicapped students. Support persons must be identified, hired, and trained. Correspondingly, many teachers will need to be trained to effectively use support persons. All this will cost additional money.

APPENDIX A

SUGGESTIONS FOR BUILDING LEVEL ACTION IN THE MAINSTREAMING OF HANDICAPPED LEARNERS IN VOCATIONAL EDUCATION

I. Suggestions For Building Level Action In Mainstreaming Handicapped Learners In Vocational Education

A. Building level planning should:

1. Maximize teacher input
2. Be interdisciplinary
3. Include formal and informal building leadership
4. Stress an affirmative approach to the mainstreaming issue.
5. Identify building goals
   a. Student identification
   b. Needed support services
   c. Instructional materials
   d. Staff development needs
6. Result in a comprehensive statement about how the school will serve handicapped students
   a. Identify persons responsible for goal attainment
   b. Establish timeline for goal attainment
   c. Determine necessary modifications of curriculum and instructional methods.
   d. Include procedures for monitoring progress including annual review
   e. Include a plan for staff development
7. Include Area and District resources and support persons
8. Be consistent with Administrative Letter Number 3, 1977-78, which addresses the matter of building level plans

B. A staff development program should

1. Address affective concerns of teachers

a. Attitudes toward the handicapped

b. Feelings of adequacy about teaching the handicapped

c. Teacher liability (particularly in industrial arts areas)

d. Expectations of teachers

2. Provide ample information regarding P.L. 94-142 and District, Area, and school policies regarding implementation.

3. Result in instructional improvements for all students

a. Instructional methods

1. Individualization

2. Instructional options

3. Cooperative teaching

b. Curriculum development

c. Ways to improve use of support personnel

4. Emphasize teacher practice of new skills and application of concepts in the classroom

C. Teachers and supervisors should mutually plan course goals that would include evaluation of the teachers' effectiveness in teaching all students.